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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,463	03/29/2007	Manfred Ratzsch	4385-060084	9932
28289 7590 05/02/2008 THE WEBB LAW FIRM, P.C. 700 KOPPERS BUILDING 436 SEVENTH AVENUE PITTSBURGH, PA 15219				
EXAMINER				
HEINER, LIAM J				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
05/02/2008		PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/565,463

**Applicant(s)**

RATZSCH ET AL.

**Examiner**

Liam J. Heincer

**Art Unit**

1796

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-43 is/are pending in the application.
- 4a) Of the above claim(s) 34-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-33 and 43 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-85/86)
- Paper No(s)/Mail Date 12/2007 and 1/2008
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 23-33 and 43, drawn to a composite material.

Group II, claim(s) 34-38, 41, and 42, drawn to a process for producing a composite material.

Group III, claim(s) 39 and 40, drawn to a second process for producing a composite material.

The inventions listed as Groups I, II and III do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: The common technical feature of the three groups is the composite material of claim 23. However, this composite material is known in the art, therefore it cannot be a special technical feature. WO 2003/046053 to Rätzsch et al. teaches the composite material of claim 23. (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053). Rätzsch et al. teaches a composite material (example 5) comprising up to 300% by weight of wood fibers/particles (5:32-39) and per 100% amine resins (14:26-44) a triazine resin (2:37-58) that has been cured/crosslinked (14:26-40).

During a telephone conversation with David Bryne on April 23, 2008 a provisional election was made with oral traverse to prosecute the invention of group I, claims 23-33 and 43. Affirmation of this election must be made by applicant in replying to this Office action. Claims 34-42 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during

prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

### ***Priority***

Acknowledgment is made of applicant's claim for foreign priority based on an application filed in Germany on July 22, 2003. It is noted, however, that applicant has not filed a certified copy of the 10333893.4 application as required by 35 U.S.C. 119(b).

### ***Specification***

The disclosure is objected to because of the following informalities: page six of the original specification refers to the "composite materials as claimed in claim 1". Because the nature of claim 1 can change during the prosecution, as evidenced by the fact that claim 1 has been cancelled already, this creates a variable nature for the disclosure.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 23, 24, and 30-33 and 43 are rejected under 35 U.S.C. 102(b) as being anticipated by Ratzsch et al. (WO 03/046053). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 23: Rätzsch et al. teaches a composite material (example 5) comprising up to 300% by weight of wood fibers/particles (5:32-39) per 100% amine

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resins (14:26-44) and a triazine resin (2:37-58) that can be a melamine resin (2:20-36) that has been cured/cross-linked (14:26-40). Rätzsch et al. also teaches adding a reactive thermoplastic to the composition (14:36-40). The curing step would also partially cross-link these reactive thermoplastics.

Considering Claim 24: Rätzsch et al. teaches the wood as being present in fibers or flour (5:19-39).

Considering Claims 30 and 31: Rätzsch et al. teaches the material as being a foamed material, a profile or an injection molded article (abstract).

Considering Claim 32: Rätzsch et al. teaches the linking groups as being other than the excluded group (2:58-3:10) and the hydroxyl groups as being exclusively etherified with C<sub>1</sub>-C<sub>18</sub> alkyl groups (3:52-54).

Considering Claim 33: Rätzsch et al. teaches the thermoplastic as being ethylene-vinyl acetate copolymers, polyurethane polymers, or aliphatic or aromatic polyesters (5:40-6:55).

Considering Claim 43: Rätzsch et al. teaches a roof element comprising the composite material (16:59-17:10).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was

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not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rätzsch et al. (WO 03/046053) as applied to claim 23 above, and further in view of Imoto (US Pat. 5,780,519). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 25: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches the wood as being used up 75% of the composite (14:26-44).

Rätzsch et al. does not teach the wood as being a combination of fibers and shavings. However, Imoto teaches using a combination of fibrous wood and wood shavings in a wood composite material (1:53-56 and 2:54-56) where the shavings are present in an amount of at least 50 percent of the wood material (7:41-43). Rätzsch et al. and Imoto are combinable as they are concerned with the same field of endeavor, namely lignocellulosic composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the combination of wood fillers of Imoto in the composite of Rätzsch et al., and the motivation to do so would have been, as Imoto suggests, it will lower the cost of the composite (7:41-8:3).

Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rätzsch et al. (WO 03/046053) as applied to claim 23 above, and further in view of Borsinger et al. (US 2003/0229168). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claim 26: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches the thermoplastic polymer as being ethylene-vinyl acetate (5:40-47) with a vinyl acetate content of 17% by weight (example 7) and being present in an amount up to 100 phr of the amino resin (14:36-40).

Rätzsch et al. does not teach the claimed vinyl acetate content. However, Borsinger et al. teaches an adhesive composition comprising a ethylene vinyl acetate with a vinyl acetate content of 28% by weight (§10081). Rätzsch et al. and Borsinger et al. are combinable as they are concerned with the same field of endeavor, namely hot melt adhesives comprising ethylene vinyl acetate copolymers. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the high vinyl acetate polymer of Borsinger et al. in the place of the low vinyl acetate polymer of Rätzsch et al., and the motivation to do so would have been, as Borsinger et al. suggests, the high vinyl acetate content increases the pliability of the polymer and the adhesion to cellulose substrates (§10014).

Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ratzsch et al. (WO 03/046053) as applied to claim 23 above, and further in view of Medoff et al. (US Pat. 6,448,307). (NOTE: US Pat. 7,173,104 is being used as an English language equivalent of WO 03/046053).

Considering Claims 27-29: Rätzsch et al. teaches the composite of claim 23 as shown above. Rätzsch et al. also teaches adding up to 2 weight percent of a UV absorber (14:40-42).

Rätzsch et al. does not teach adding a flame retardant, pigment, or auxiliary. However, Medoff et al. teaches adding a flame retardant, colorant/pigment or lubricant (6:20-28) to a melamine-wood composite. Rätzsch et al. and Medoff et al. are combinable as they are concerned with the same field of endeavor, namely melamine-wood composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have added the components of Medoff et al. to the composite of Rätzsch et al., and the motivation to do so would have been, as Medoff et al. suggests, these are well known additives in thermosetting compositions (6:20-28).

Rätzsch et al. does not teach the flame retardant, pigment, or auxiliary as being added in the claimed amounts. However, it is well known in the art to optimize result effective variables such as ingredient amount. It would have been obvious to a person having ordinary skill in the art at the time of invention to have optimized the amounts of



the components through routine optimization, and the motivation to do so would have been to increase the fire resistance, provide the desired colored product, and to increase the processability respectively.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO form 892.

### ***Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 23, 24, and 31 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 27 and 29 of copending Application No. 11/922,432. Although the conflicting claims are not identical, they are not patentably distinct from each other because:

Considering claim 23: Claim 27 of application '432 teaches a composite material comprising 40 to 85% wood and 15 to 60% by weight of a crosslinked melamine resin ether (claim 19).

Considering claim 24: Claim 27 of application '432 teaches the wood as being in the form of flour, particles, granules, fibers or shavings (claim 27).

Considering Claim 31: Claim 29 of application '432 teaches the product as being a sheet or a profile (claim 29).

Claim 25 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 27 of copending Application No. 11/922,432 as applied to claim 23 above, and further in view of Imoto (US Pat. 5,780,519).

Considering Claim 25: Claim 27 of application '432 teaches the composite of claim 23 as shown above.

Claim 27 of application '432 does not teach the wood as being a combination of fibers and shavings. However, Imoto teaches using a combination of fibrous wood and wood shavings in a wood composite material (1:53-56 and 2:54-56) where the shavings are present in an amount of at least 50 percent of the wood material (7:41-43). Claim 27 of application '432 and Imoto are combinable as they are concerned with the same field of endeavor, namely lignocellulosic composites. It would have been obvious to a person having ordinary skill in the art at the time of invention to have used the combination of wood fillers of Imoto in the composite of claim 27 of application '432 and the motivation to do so would have been, as Imoto suggests, it will lower the cost of the composite (7:41-8:3).

Claims 27-29 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 11/922,432 in view of Medoff et al. (US Pat. 6,448,307).

Considering claim 23: Claim 22 of application '432 teaches a composite material comprising 40 to 85% wood and 15 to 60% by weight of a crosslinked melamine resin ether (claim 19). Claim 22 of application '432 also teaches adding a lubricant, a flame retardant, a pigment and a UV absorber to the composite (claim 22).

Claim 22 of application '432 does not teach the flame retardant, pigment, UV absorber, or lubricant as being added in the claimed amounts. However, it is well known in the art to optimize result effective variables such as ingredient amount. It would have been obvious to a person having ordinary skill in the art at the time of invention to have optimized the amounts of the components through routine optimization, and the motivation to do so would have been to increase the fire resistance, provide the desired colored product, increase the stability outdoors, and to increase the processability respectively.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

### ***Correspondence***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Liam J. Heincer whose telephone number is 571-270-3297. The examiner can normally be reached on Monday thru Friday 7:30 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Eashoo can be reached on 571-272-1197. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/MARK EASHOO/

LJH

Supervisory Patent Examiner, Art Unit 1796

April 24, 2008

1-May-08